Acceleration of the Cell Culture Process

OLYMPUS

count   review   protocol   settings

For research use only.

Accurate and Reliable Results

Exclusive Software Designed for Accurate Cell Counting

Cell Counter model R1 is designed to reduce workloads and to standardize the cell counting process. Its unique software algorithm speedily provides accurate counting results for a variety of cell types. It automatically declusters clumped cells, performs size- and roundness- based sorting, and identifies live/dead cells. Finally, the counting results can be saved together with the acquired images as a comprehensive report.
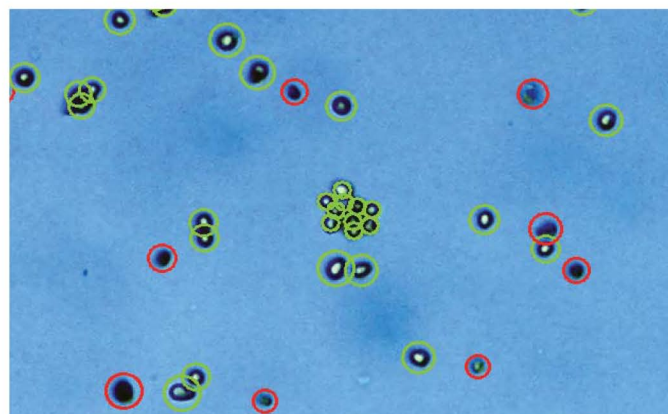
○ :Live cells ○ :Dead cells

Accurate Counting Even with Clustered Cells

Since cells are properly identified regardless of whether they are single or clustered, the number of cells can be accurately counted with nearly the same accuracy as counting with the human eye.

Cell Size-Based Gates

The average size of the cells varies depending on the cell type. The maximum and minimum cell sizes can be adjusted to correctly detect the desired cells. In addition, the counting results can be displayed as a histogram based on the size distribution, which helps when analyzing only cells in a certain size range and for excluding undesired particles.

Comprehensive Report Results at a Glance

The report files can be loaded easily, and contain the protocol which was used, the cell count results, the corresponding raw and analyzed cell images, and histograms. There is no need to write down the detailed settings for each cell count. In review mode, multiple reports can be viewed at once on the touchscreen, including the numbers of live/ dead cells and average cell size.
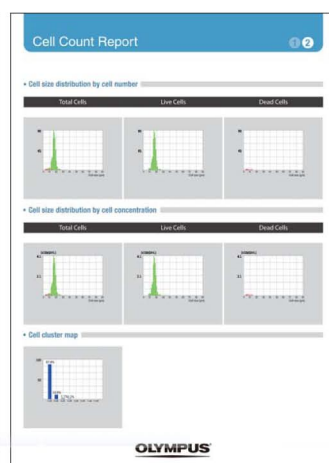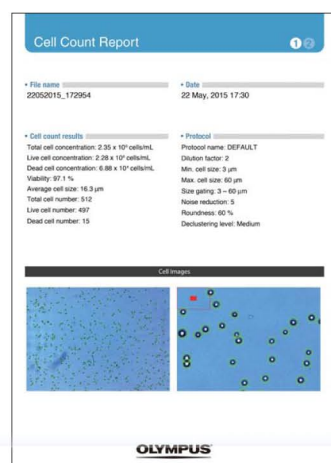
Individual Protocol Setting

Each detection parameter can be modified to fit the sample conditions. Up to 300 specific protocols can be easily saved and reloaded, which helps to obtain quick counting results for routine procedures.

Automatic Dilution Calculator

By setting the desired concentrations, the dilution calculator automatically calculates the volume of cell suspension needed, which makes for a quick transfer to subsequent procedures.

More Efficient Counting without Trypan Blue Staining

The Cell Counter can quickly count and present the total number of cells in a sample without the use of Trypan Blue. When the approximate proportion of live/dead cells in the sample is known, the number of live cells can be roughly estimated, allowing for a faster procedure.

More Efficient Data Management

The Cell Counter automatically stores up to 1,000 counts, and data can be exported as a CSV file. Also, the count results and image data can be stored as a TIFF, an annotated TIFF, or a PDF report file. Moreover, these data can easily be transferred to other storage devices via the USB ports.

Innovative Autofocusing Liquid Lens Technology

The Cell Counter focuses on cells quickly and automatically using liquid lens technology that is similar to the way human eyes focus, and provides high-accuracy and reliable cell counting. The lens can autofocus in the Z-axis direction at the right position, producing more accurate counting results and increasing the accuracy and reliability of cell counting.
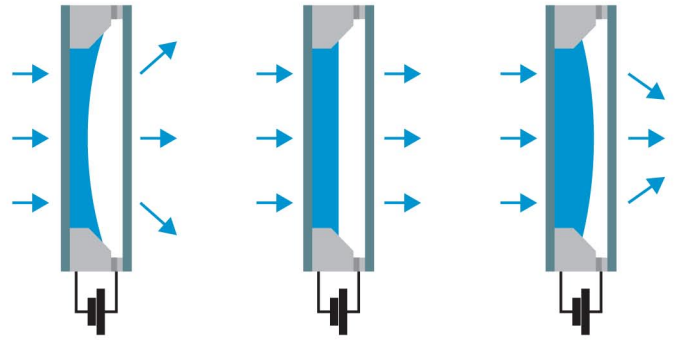
Focus adjustment by the liquid lens

User-Friendly Design

Portable Design

The handle on the top of the counter makes it easy to transport the Cell Counter, allowing it to fit any workplace setting. A storage space for the AC adapter is conveniently built into the back of the counter. An extension cord can also be stored easily with no hassle.

Cost Efficient Disposable Slides

When the disposable counting slides specifically designed for the Cell Counter are used, cells can be easily placed through the loading slits on the slide. Two sets of cell counting are performed on one slide, helping to save costs.

User-Friendly Touchscreen

Designed with usability in mind, the Cell Counter comes as a standalone automated cell counter with a steady operation platform. The stability of the large touchscreen on the lower part of the Cell Counter makes it possible to easily and smoothly count cells, view data, and print the results.

SPECIFICATIONS

Cell Counting Time [1]	Less than 10 s (manual focusing)
	Less than 15 s (auto focusing)
Cell Concentration Range	5×10^4 - 1×10^7 cells/mL
Cell Diameter Range	3 - 60 μm (optimal: 8 - 30 μm)
Output information [2]	Total / Live / Dead cell concentration Total / Live / Dead cell number Viability Average cell size
Image Resolution	5 Mpixels , Color
Focusing mode	Automatic / Manual focusing with liquid lens
Adjustable parameters	Size, Roundness, Dilution factor, Noise reduction, Declustering
Image Type	TIFF, annotated TIFF
Report Format	PDF
Count Data storage	1,000 counts
Protocol storage	300 protocols
Display	LCD touchscreen: 800 x 480 , 7inch
USB port	3 ports
Thermal printer	Built-in
Dimensions (W x D x H)	195 mm x 237 mm x 272 mm
Weight	2.1 kg (without the external power adaptor)
Input Power	AC 100-240V 50/60Hz 1.2A

*1: Cell counting at less than 1×10^6 cells/ml concentration of HeLa or HL-60 cells.
*2: Live / Dead cell concentration, number and cell viability can be available with trypan blue mode.

DIMENSIONS

(Unit: mm)

COUNTING SLIDES SPECIFICATIONS

Material	Polystyrene
Dimensions (W x D x H)	75 mm x 25 mm x 2.4 mm
Chamber volume	10 μL
Quantity per box	100 counts (50 slides , 2 chambers per slide)

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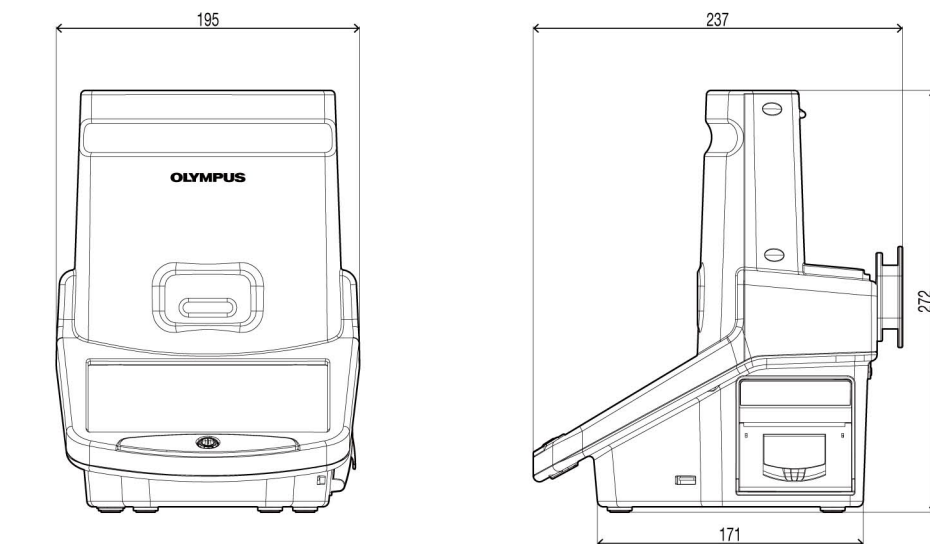t : +44 (0)1793 812 477 | e : enq@bestscientificweb.com